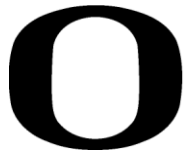


Presented to the Interdisciplinary Studies Program:



UNIVERSITY OF OREGON
APPLIED INFORMATION MANAGEMENT

Applied Information Management
and the Graduate School of the
University of Oregon
in partial fulfillment of the
requirement for the degree of
Master of Science

Overcoming Collaboration Obstacles in Globally Distributed Teams

CAPSTONE REPORT

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Spring 2017

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Abstract

This annotated bibliography focuses on the obstacles which arise when using globally distributed teams. The references are meant to provide material to human resource (HR) and information technology (IT) managers on how to enhance and encourage collaboration within these teams. The documents examined were all published between 2008 and 2016 and focus on collaboration challenges, management best practices, and collaboration technology.

Keywords: internationally distributed teams, team collaboration, collaboration technology, collaboration tools, knowledge transfer

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Introduction to the Annotated Bibliography

Problem

A geographically dispersed team is defined as a team that “work[s] across time and space boundaries” (Chiu & Staples, 2013, p. 499). Tsedal Neeley, a professor at Harvard Business School whose research focuses on interpersonal dynamics and global collaboration, reported in 2015 that, “[t]o succeed in the global economy today, more and more companies are relying on a geographically dispersed workforce” (p. 77). In 2012, the Gartner Group reported that over 60% of professional employees work in virtual teams, which oftentimes span countries (Paloş, 2012, p. 42). One common challenge for organizations that utilize geographically dispersed work teams is collaboration (Hill & Bartol, 2016).

Collaboration in the workplace is defined as “the work of two or more people on common material, which is characterized by coordination, communication, and cooperation” (Oeste-Reiß, Söllner, & Leimeister, 2016, p. 799). Jensen (2015) notes “collaboration serves an important role in nurturing and sustaining knowledge sharing throughout the organization” and that team cooperation and collaboration are “significant determinants of knowledge generation,” which is necessary to extend a company’s growth (p. 102). Moreover, collaboration advances knowledge through an organization, which helps “generate a certain volume of information that multiplies and diversifies rapidly, thus influencing society’s development” (Paloş, 2012, p. 40). However, with teamwork barriers that originate from significant personal differences throughout internationally distributed teams, management may find it more difficult to cultivate an environment of collaboration (Klitmøller, Schneider, & Jonsen, 2013).

The most often referenced cause of collaboration struggles for geographically dispersed teams is communication. Chiu and Staples (2013) hypothesize that “[h]igher conflict [among

geographically dispersed teammembers] could be due to miscommunication and misunderstandings” (p. 518). Another study of international companies reported that 78% of survey participants encountered communication problems in the workplace that caused confusion and/or misunderstanding (Kic-Drgas, 2015, p. 79). Additionally, poor choices of images and words have been found to cause mix-ups in a corporate setting of a global company due to a failure to account for culturally dependent interpretations of the media (Reilly, 2015, p. 39). Etiquette errors due to foreign language variances have been shown to “...negatively influence an e-mail recipient’s perceptions of the e-mail sender’s extraversion, agreeableness, and trustworthiness” (Vignovic & Thompson, 2010, p. 271).

As a result of the communication challenges posed by workforces distributed around the globe, organizations that rely on these team structures report impacts to efficiency, staff morale, and ultimately profit (Stahl, Mäkelä, Zander, & Maznevski, 2010, p. 441). However, researchers have found that the ability for distributed teams to work with the same efficiency and effectiveness as collocated teams has been heightened with the introduction of certain technology-based coordination mechanisms (Ambos & Ambos, 2009, p. 2). Technology improvements and new tools for communication, project management, and collaboration hold promise for addressing the issues related to distributed teams.

Purpose

With the proliferation of globally distributed teams over recent years, “[p]roject failures have been reported and calls for better understanding of GVT [Global Virtual Team] problems have been made” (Pinjani & Palvia, 2013, p. 144). The purpose of this annotated bibliography is to present literature that addresses the collaboration challenges introduced due to communication

problems when utilizing globally distributed teams. The study includes literature that describes tools and technologies that can be implemented to remedy these issues.

Research Question

Main question. What tools and technologies can be used to assist communication between internationally distributed employees to promote successful collaboration?

Audience

All employees working for a global company may benefit from this study, as it provides information on techniques to create positive relationships with peers and increase worth as an employee. The study is targeted towards organizations utilizing globally distributed teams; the intended audience includes: human resource (HR) managers and information technology (IT) directors.

“Human resource management (HRM) is about how people are managed and employed...[and it involves]...the provision of services that enhance the well-being of employees” (Armstrong & Taylor, 2017, p. 1). This study is of interest to these stakeholders as it draws attention to the issues that arise when employees are required to work in poorly constructed environments where they are less likely to succeed. The information and findings presented will enable HR managers to better advocate for their employees and promote tools and technologies that will enable them to be more effective.

Additionally, various areas within IT departments of global companies may be positively impacted by this study. IT directors are most often in charge of global collaboration tools, including instant messaging, email, and telephony (McMahon, 2017). With this study, IT directors will gain ideas of new collaboration technologies and how to cultivate new ways to use

their current collaboration tools to better serve their international employees throughout the company.

Search Report

Search strategy. The search strategy for this report began with the location of key terms that were combined to formulate complex queries entered into public search engines and library databases. The words: *global company*, *technology tools*, and *language* were initially entered and these searches returned several variations and synonyms that allowed a broader scope of possibilities. Potential resources were restricted to published books, peer-reviewed articles, and scholarly journal publications. Further material was found with the review of documented references in primary search results.

Search terms. The following search terms, phrases, and Boolean expressions were used to locate relevant sources.

- global company,
- technology tools,
- language,
- global teamwork,
- disbursed teams,
- global business collaboration tools,
- impact of cultural differences on teams,
- team multiculturalism obstacles,
- technology-based coordination mechanisms,
- global companies AND collaboration between languages,
- multinational enterprises OR multinational corporations,

- (global teams OR disbursed teams) AND collaboration tools,
- (global teams OR disbursed teams) AND communication barriers,
- nonnative languages AND teamwork,
- language AND culture AND (teams OR global organization), and
- information technology AND (national culture OR language) AND (global companies OR multinational corporations).

Search engines and databases. Searches were limited to the University of Oregon (UO) Libraries' database offerings and Google Scholar. The specific UO Libraries' databases relied upon were as follows:

- Business Source Complete (EBSCOhost),
- JSTOR, and
- Computer Database.

Documentation approach. Upon locating potential references, a portable document format (PDF) copy of each was saved to a folder stored on a removable USB drive and backed up via the cloud service Google Drive. File names were derived from author last names combined with a shortened title and year of publication. The PDF files were then read in full and categorized into a nested folder labeled *Bad Resources*, *Good Resources*, or *Supplemental* depending on relevance. The PDF files included in the *Good Resources* folder were further grouped utilizing folders with the category names *collaboration challenges with internationally distributed teams*, *best practices to promote successful collaboration for internationally distributed teams*, and *collaboration technology for use in internationally distributed teams*.

Reference evaluation criteria. References presented in this annotated bibliography were evaluated based on guidelines set forth by the Center for Public Issues Education (n.d.):

- Authority – The author of this study verified that each reference selected had been cited in various publications reporting research on business, management, and/or information systems and that the authors did not have any negative online reviews.
- Timeliness – The resources consulted were all published within the past 10 years to ensure that the most up-to-date information and technologies were found. Due to the fast pace of technology, the *collaboration technology for use in internationally distributed teams* category was limited to only resources published within the past five years, with only one reference falling outside of the two year marks.
- Quality – The sources referenced in this annotated bibliography were read in full to confirm proper spelling, grammar, and punctuation, as well as to determine that data were presented in a manner which allowed a clear understanding of subject matter.
- Relevance – The selected publications were published in scholarly journals by reputable book publishers, rather than online publication only, certifying their appropriateness for research purposes. All were found to relate to distributed teams, their collaboration efforts, and/or collaboration technologies.
- Bias – Lastly, the author of this study determined that each piece of material used in this annotated bibliography was not written to persuade readers or solicit funds, and all citations from document conclusions were verified to be credible.

Annotated Bibliography

The below annotated bibliography provides 15 references selected to address the problems encountered with collaboration among internationally distributed employees. References are categorized as one of the following: collaboration challenges with internationally distributed teams, best practices to promote successful collaboration for internationally distributed teams, or collaboration technology for use in internationally distributed teams. Three sections appear for each annotation: an APA formatted bibliographic citation, the published abstract, and a summary written by the author of this study.

Collaboration Challenges with Internationally Distributed Teams

Friesl, M., & Silberzahn, R. (2012, April-June). Challenges in establishing global collaboration: Temporal, strategic and operational decoupling. *Long Range Planning*. 45(2-3), 160-181.
<https://doi.org/10.1016/j.lrp.2011.11.004>

Abstract: Collaboration among the subsidiaries of multinational enterprises (MNEs) can lead to major synergies and efficiency gains. Despite these benefits, global collaboration is still only partly corporate reality. Research indicates that major obstacles still lie in establishing subsidiary collaboration. Initiating global collaboration requires strategic renewal with profound implications for MNEs' local operations. In this article we investigate the process of strategic renewal leading to global collaboration and the challenges involved. We present a longitudinal case of an international IT company and its effort to establish global collaboration among its subsidiaries. The case analysis reveals that the establishment of global collaboration was affected by a decoupling of headquarters and subsidiaries along three dimensions: temporal, strategic and operational. Our findings have implications for research on global collaboration as well as

strategic renewal. Practitioners can benefit from a discussion of challenges in the establishment of a collaborative strategy in MNEs and suggestions for how these challenges can be overcome.

Summary: This article by Friesl and Silberzahn summarizes the problems encountered with global collaboration at a specific IT organization, Global Service Solutions (GSS). Three major obstacles are described: temporal, strategic, and operational decoupling. Temporal decoupling refers to “[t]ime lag between a unit’s actions and the reception of feedback from those actions” (p. 174), strategic decoupling is “[m]isalignment between the strategies pursued by headquarters and local country subsidiaries” (p.174), and operational decoupling is defined as “[d]isconnect between the actual collaborative practice and the way the transformation was set up” (p.174). In the article the authors provide ideas on how managers can help break down the barriers, which include switching from global management meetings to periodic meetings with a small group of managers to decrease the path through which feedback must travel, in turn eliminating significantly the amount of time for individuals to receive communication (temporal decoupling). To assist with strategic decoupling, global objectives should be broken down into goals for different areas of an organization that then tie back to the overarching desired end state for the company. Lastly, to lessen the impact of operational decoupling executives can reduce project work and incorporate these activities into daily responsibilities of employees. The options provided with this article are important for managers to keep in mind to prevent decoupling from negatively impacting their collaboration efforts, and ultimately, success over time.

Monalisa, M., Daim, T., Mirani, F., Dash, P., Khamis, R., & Bhusari, V. (2008, July-August).

Managing global design teams. *Research Technology Management*, 51(4), 48-59.

Retrieved from <http://www.jstor.org/stable/24135907>

Abstract: Geographically distributed design teams have become crucial, yet a significant number fail to accomplish their objectives. The reason is that long distances and cultural differences compromise working relationships, communications, trust, accountability, organization, individual contribution, and thus productivity. This paper analyzes eight such teams in the high-tech industry and discusses the most common issues/problems that surround them. These are categorized as technological, organizational and personal. An expert panel assigns a score to the problems and provides a set of recommendations that can improve productivity and minimize failure in such virtual teams.

Summary: Monalisa et al. (2008) have documented their work studying eight companies who utilized geographically dispersed teams to outline the difficulties that must be overcome with distributed teams in order to remain successful. The researchers utilized case study methodology for data collection and analysis to extract key findings. They identified the following specific struggles within each of the eight companies: inconsistency with responsibility assignment and reporting structure between cross country teams, lack of direction for continued work due to distance, time zone challenges, lack of communication between teams, language barriers, no standard methods of communication, constraints on funding for advanced communication tools, and lack of trust between team members. The research concludes that smaller dispersed teams are more likely to succeed, globally distributed teams should have well-documented processes to help move work forward smoothly and clearly defined roles for each team member, and training and coaching are necessary for management to build trust and understanding among team members. This article shows real-life problems experienced by companies with geographically distributed teams and provides simple solutions that can be applied by managers with little effort and high potential for success.

Neeley, T. B., Hinds, P. J., & Cramton, C. D. (2012, July-September). The (un)hidden turmoil of language in global collaboration. *Organizational Dynamics*, 41(3), 236–244.

<https://doi.org/10.1016/j.orgdyn.2012.03.008>

Abstract: Companies are increasingly relying on a lingua franca, or common language (usually English), to facilitate cross-border collaboration. Despite the numerous benefits of a lingua franca, our research reveals myriad challenges that disrupt collaboration and contribute to process decrements and productivity losses, many of which are hidden from leaders' attention. Through a series of field studies with global companies, we document language dynamics among global workers. Most notably, we found that both native and nonnative English speakers suffer anxiety when faced with conducting business in English. Nonnative English speakers respond with anxiety-mitigating strategies, such as avoiding English-only speakers or reverting to their native language, thus passing the problem like a "hot potato" to their native English-speaking colleagues. Native English speakers respond with strategies to reduce their own anxiety, such as exiting meetings and demanding that English be spoken, which passes the burden back to their nonnative English speaking colleagues. This back-and-forth dynamic often occurs because the feelings and experiences of native and nonnative co-workers are hidden from each other. Empathy arrests this cycle, leading to more sensitivity and accommodation of language diversity. Based on the insights from our research, we present lessons that global managers and collaborators alike can employ to halt the "hot potato" cycle and minimize productivity loss in global collaborations.

Summary: This article discusses the experiences of five companies that chose to implement an English mandate in which employees were to conduct all business in English, even if it was not their native language. The authors provide several first-hand experiences and

thoughts from employees (both native and non-native English speakers) at these companies where frustrations and anger are expressed. In conclusion, the authors of the article provide communication/collaboration tips for both employees and managers. The authors recommend that managers within an organization operating cross-language/cross-cultural teams should: understand the challenges and anticipate the potential issues that will arise, create an environment that supports inclusion for all cultures and languages, promote training and practice to improve one's abilities in communicating with other cultures, encourage empathy, and test/investigate assumptions of how they believe their employees may be feeling. Specific strategies include taking time to examine employee behaviors to pinpoint common avoidance tactics to enact solution quickly and removing language barriers for employees while supporting accelerated language training for those who request further assistance. Additionally managers may choose to provide lunch-and-learns for employees with different native languages so that they may learn from one another. Lastly, asking for feedback from employees will provide management endorsement of the sharing of feelings and understanding of others' experiences and at the same time help managers clearly identify issues that can be resolved with assistance. This article is important for this study because it documents the typical challenges experienced by global teams and provides suggestions for how to resolve them.

Tenzer, H., Pudelko, M., & Harzing, A.-W. (2014, June). The impact of language barriers on trust formation in multinational teams. *Journal of International Business Studies*, 45(5), 508-535. <https://doi.org/10.1057/jibs.2013.64>

Abstract: This study systematically investigates how language barriers influence trust formation in multinational teams (MNTs). On the basis of 90 interviews with team members, team leaders and senior managers in 15 MNTs in 3 German automotive corporations, the authors

show how MNT members' cognitive and emotional reactions to language barriers influence their perceived trustworthiness and intention to trust, which in turn affect trust formation. The authors contribute to diversity research by distinguishing the exclusively negative language effects from the more ambivalent effects of other diversity dimensions. Their findings also illustrate how surface-level language diversity may create perceptions of deep-level diversity. Furthermore, their study advances MNT research by revealing the specific influences of language barriers on team trust, an important mediator between team inputs and performance outcomes. It thereby encourages the examination of other team processes through a language lens. Finally, their study suggests that multilingual settings necessitate a reexamination and modification of the seminal trust theories by Mayer, Davis and Schoorman, and by McAllister. In terms of practical implications, the authors outline how MNT leaders can manage their subordinates' problematic reactions to language barriers, and how MNT members can enhance their perceived trustworthiness in multilingual settings.

Summary: The authors of this article took time to examine previous research conducted on the impact of language and trust in organizations before beginning their own experiments to draw conclusions. After collecting and analyzing data from 15 MNTs, several suggestions were given which should lessen the negative impacts of cross-language team work and collaboration. Managers who interact with global teams speaking different languages should be diligent to discuss the known problems with communication issues between parties within the teams, as well as recognizing, in public, each team member's contribution to successes to show that skills have not been negatively impacted due to language barriers. Managers of global team members should also take care to succinctly describe meeting outcomes to ensure understanding by

everyone and build trust in their own leadership. These suggested actions will address very common language issues experienced by most global organizations today.

Best Practices to Promote Successful Collaboration for Internationally Distributed Teams

Ambos, T., & Ambos, B. (2009). The impact of distance on knowledge transfer effectiveness in multinational corporations. *Journal of International Management*, 15(1), 1-14.

<https://doi.org/10.1016/j.intman.2008.02.002>

Abstract: This paper aims to shed light on the interplay of knowledge transfer mechanisms and distance within the MNC. While it is largely undisputed that cross-boarder [sic] knowledge flows contribute to the firm's success, our knowledge on the effects of specific transfer mechanisms is scarce. We examine the impact of different dimensions of distance to test the applicability of personal coordination mechanisms (PCM) and technology-based coordination mechanisms (TCM) in situations of differentiation and dispersion. Data on 324 knowledge transfer relationships of MNC units was used to test our hypotheses. While TCM function relatively context-free, we find that PCM are moderated by distance. Our results support moderating effects of geographic, cultural and linguistic distance, which are vital to our understanding of knowledge transfer effectiveness in MNCs.

Summary: The article written by Ambos and Ambos outlines a study performed by observing 164 organizations classified as MNCs. The paper discusses previously published literature in regard to the impact of distance on knowledge transfer; the authors note that findings from past research indicate only negative effects on knowledge transfer with distributed teams. The authors conducted a study to test the hypotheses that technology-based coordination mechanisms (TCMs) and personal coordination mechanisms (PCMs) both positively impact knowledge transfer effectiveness. The results indicated that new knowledge can actually be

enhanced when working with international team members. The enhanced knowledge occurs because users can be more creative with their sharing by using technology which offers new ways to communicate with methods other than text; users also must be more innovative with PCM's to ensure knowledge reaches others with the intended effects.

The authors also offer reassurance for managers of international companies that using TCM's will increase the effectiveness of knowledge transfer over distance and culture because it is typically easier to store and de/re-code information using such technology. This article is of importance for global companies as it demonstrates the difference in impact of PCM's and TCM's on knowledge transfer in correlation to team member distance, suggesting that TCM's are more impactful in the long run for those teams dealing with greater distance and stronger language barriers, while PCM's are still helpful when working with teams which are more similar in culture and closer in time differences.

Green, L. (2012). Components of success. *Smart Business Northern California*, 5(5), 13-16.

Abstract: The article discusses how San Jose, California-based NeoPhotonics Corp.'s chief executive officer (CEO) Timothy Jenks handled their acquisition of China-based Photon Technology Co. Ltd. It states that Jenks and his executives spent some time in China to start a level of understanding between both teams to make decisions easier. It explores the issues that Jenks addressed which include the language barrier, cultural differences, and getting the companies to act as one global company.

Summary: This article follows the journey of CEO Timothy Jenks as he struggles to turn two separate companies, based in different countries, into one global company. Jenks offers a narrative of best practices which can be used to encourage and promote a global company design, even when cultures clash. The methods used, included providing extended face-to-face

time to help promote understanding between employees, creating shared common goals that provide opportunities for global incentives rather than local ones, and allowing turnover to occur when employees are not excited about new opportunities with the global company. In order to increase the amount of face-to-face interaction with employees, some managers may choose to relocate for a period of time. Management should also eliminate any old goals from previous iterations of company development in order to start fresh with new shared goals that all employees can understand. Speaking with employees to understand their desired career paths will also help categorize those who should stay and those who may need to pursue other career opportunities. The methods described were shown to positively impact collaboration with Jenks' globally distributed teams at NeoPhotonics Corp. during two separate mergers and can be implemented by management at other international organizations with the right tenacity.

Harzing, A.-W., Köster, K., & Magner, U. (2011, July). Babel in business: The language barrier and its solutions in the HQ-subsidiary relationship. *Journal of World Business*, 46(3), 279-287. <https://doi.org/10.1016/j.jwb.2010.07.005>

Abstract: Using interview data from managers in eight German and Japanese corporate HQs and their subsidiaries in Japan or Germany, we provide the first large-scale empirical analysis of the language barrier and its solutions. We found that language is an important barrier, slowing down and increasing the cost of decision-making. Our research suggests twelve different solutions, ranging from informal day-to-day solutions such as changing communication patterns and code-switching, to more structural solutions such as language training and a common corporate language. We confirm and extend previous research and conclude that future research should more explicitly consider the different configurations of language skills for HQ and subsidiary managers.

Summary: Harzing, Köster, and Magner observed eight international companies in both Germany and Japan; their findings focus on the hindrance to collaboration introduced by “the forgotten factor,” which they identify as the international language barrier. The researchers interviewed 44 MNC employees, 37 managers and seven engineers, to identify challenges posed by language barriers in international companies and potential solutions. Key solutions the researchers identified include the use of simple technology, such as email, for communication between non-collocated employees. The researchers found that a preference for this simple technology was due to the fact that managers felt their written skills were more developed than their verbal skills. Additionally, the employees sending the communications had more opportunities to refine their emails and ask for help with translations if necessary, which is not possible with more real-time communication methods. The researchers also found that the use of machine translation for interpreting written material aided in basic understanding of topics, but should be used with caution when more critical matters are at hand due to the possibility of error. Finally, they recommend involving expatriates to help improve communication channels throughout the company, while also helping to spread corporate culture to newly integrated employees.

Jensen, K. R. (2015, December). Global innovation and cross-cultural collaboration: The

influence of organizational mechanisms. *Management International*, 19(special). 101-116. Retrieved from

https://www.researchgate.net/profile/Karina_Jensen3/publication/292379375_Global_Innovation_and_Cross-cultural_Collaboration_The_Influence_of_Organizational_Mechanisms_LInnovation_Gl

[obal et la Collaboration Interculturelle L'Influence des Mecanismes Organisationnel
s La Inn/links/56adeb7308ae43a3980e5b59.pdf](https://www.scribd.com/document/56467308/La-Collaboration-Interculturelle-L-Influence-des-Mecanismes-Organisationnels-La-Inn/links/56adeb7308ae43a3980e5b59.pdf)

Abstract: The globalization of innovation implies the necessity of collaborating across cultures and countries. The inability of the MNC to facilitate collaboration and knowledge sharing can affect innovation management performance and international market results. How can MNCs optimize cross cultural team collaboration in order to strengthen global innovation management capabilities? In responding to this research question, a qualitative study has been conducted with 58 global project leaders at 32 MNCs with headquarters based in Asia, Europe, and North America. Through the development of an exploratory model, the study identifies specific organizational mechanisms and routines that influence cross-cultural collaboration and global product innovation performance.

Summary: In this article, Jensen strives to show how MNCs can put in place collaboration processes to enhance company innovation. Jensen begins by summarizing the increased need for and difficulty with knowledge sharing across borders in global organizations. Jensen found that project management and team collaboration are the most effective techniques to facilitate innovation for globally dispersed teams within a company. He specifically identifies the need for managers to set up a collaborative space for global and local team members to meet on a regular basis, including weekly project meetings for idea sharing. Jensen also recommends advocating for increased face-to-face meetings, as well as a travel allowance for site visits. The recommendations within this article have been shown to increase the success of innovation within a global company and should provide best practices for global managers throughout any product launch.

Pinjani, P., & Palvia, P. (2013, June). Trust and knowledge sharing in diverse global virtual teams. *Information & Management*, 50(4), 144-153.

<https://doi.org/10.1016/j.im.2012.10.002>

Abstract: Global virtual teams (GVTs) allow organizations to improve productivity, procure global knowledge, and transfer best practice information instantaneously among team members. GVTs rely heavily on IT and have little face-to-face interaction, thereby increasing problems resulting from geographic barriers, time language, and cultural differences, and interpersonal relationships. The purpose of our study was to design a normative framework that would assist organizations in understanding the relationship between diversity, mutual trust, and knowledge sharing among GVTs, with additional focus on understanding the moderating impact of collaborative technology and task characteristics. Empirical data was collected from 58 GVTs and analyzed using a Hierarchical Multiple Regression technique. Results showed that in GVTs, deep level diversity has a more significant relationship with team processes of mutual trust and knowledge sharing than visible functional level diversity. This relationship is moderated by the collaborative capabilities of available technology and levels of interdependence of the task. Furthermore, knowledge sharing and mutual trust mediate the relationship between diversity levels and team effectiveness.

Summary: This article from Pinjani and Palvia presents a complex study designed to explain the impact of specific areas on GVTs: diversity, trust, and knowledge sharing. The authors found that trust within GVTs positively impacts knowledge sharing and helps to build relationships, as well as increase effectiveness; in addition, working toward a common goal helps to create value through collaboration. Through these findings, the authors encourage managers to participate in training to better understand relationship building and share the knowledge gained

with GVT employees. They also suggest organizing more diverse teams by bringing in experts from different areas, which has been shown to increase task motivation. This article is useful because the concluding evidence could be of great use to failing organizations as execution of the recommendations could potentially lead to success in the use of global virtual teams.

Reilly, P. (2015). Managing across borders and cultures. *Strategic HR Review*, 14(1/2), 36-41.

<http://dx.doi.org/10.1108/SHR-07-2014-0042>

Abstract:

Purpose

– The aim of this paper is to ask why western organisations appear to be moving towards a single global HR model that minimises cultural differences compared with Asian organisations that seem to allow more variation in HR policies and practices. Moreover, we try to identify the problems western organisations face in taking this route and how they seek to overcome them.

Design/methodology/approach

– The paper is based on a case survey approach whereby the author (and colleague) researched the global HR practices of some 70 organisations, interviewing a good proportion of the senior HR managers in these organisations. The focus was on global employment brands, culture and diversity, as well as talent management and HR service delivery model.

Findings

– Western organisations seem to be moving towards a single global HR model that minimises cultural differences, whereas “polycentric” organisational forms are common in Asian companies. This may be to do with ownership structure and business model, but is also through Western organisations fashioning a “one company” philosophy and reducing costs through centralisation. This approach risks the creation of an ethnocentric world view based on a home

country perspective that might damage diversity and lead to the cloning of the business leadership. The paper offers some risk mitigation strategies based around having common people principles but allowing distinctive local practice.

Research limitations/implications

– The research is case study-based. There is no quantitative element to the results. Thus, the research has the benefit of in-depth understanding of organisational practice and its context, and the author (and colleague) do not have the benefit of testing the findings across a larger number of organisations. In particular, the East versus West distinction the author (and colleague) made needs further refinement. And, the author would want to look in more depth at the business structures of Western firms to see how much effect they have on organisational culture.

Practical implications

– Organisations can take the findings, including solutions to the problems of ethno centrality, and apply them to their own situations. In particular, it should encourage a more thoughtful review of the development of organisational culture and especially reflection on the dangers of standardisation and consolidation of HR services.

Originality/value

– This paper is based on original case study research and uses these insights to consider some of the academic debates about organisational culture and HR services, specifically within the context of global operations. The advice to organisations will be new to practitioners, although it builds on previous work.

Summary: This article describes the research conducted by Peter Reilly and Tony Williams, who observed the *HR service delivery model* of 70 organizations. The organizations chosen for study had a home base in either the United States (U.S.) or in Asia. Findings showed

that while the U.S. based companies mostly chose to use a global HR service delivery approach, companies in Asia allowed for a more culturally diverse HR service delivery model which accommodated the cultural differences in each area of operation. The article describes some of the challenges faced by the organizations that chose a single HR approach, including: ethnocentricity risks, communication problems, and blindness to local circumstances and culture. Periodic culture audits can assist with this process and help leadership stay aware of their influence over the organization as a whole. Finally, the author of this article provides best practices on how to side-step the obstacles which may arise when dealing with a global HR system. Reilly suggests utilizing *glocal* principles, which are behavior-based, rather than belief-based principles in order to avoid cultural insensitivity. This method is superior because belief-based principles are at times in direct violation of law and may alienate a large portion of the workforce if they are in direct competition with cultural norms and acceptable practices.

Collaboration Technology for Use in Internationally Distributed Teams

Brewer, P. (2015). Technology and global virtual teams. In *International virtual teams:*

Engineering global success. (pp. 114-136). Hoboken, NJ: Wiley.

<http://dx.doi.org/10.1002/9781118886465.ch6>

Summary from the book's author: In this chapter, I have focused on the affordances of technology so that you can align ICTs with your organization's needs even while the technologies themselves change over time. The task/context/technology match lies at the center of this alignment and your teams' success. The project leader or team manager should lead this effort but work closely with team members throughout the process—so that you understand team needs and the team understands the communication technology infrastructure.

Summary: In Chapter 6 of Brewer's 2015 book, *International Virtual Teams: Engineering Global Success*, the author discusses the importance of technology in promoting effective global collaboration for virtual teams. Brewer details several methods of communication that can be used by virtual teams including email, instant messaging, web conferencing, telephone, and memos. He also offers ideas on how to determine the most suitable method for any manager's current situation, including the use of Table 1 to help with technology selection. The author recommends allowing for mixed media in virtual teams, including: text messaging, instant messaging, email, and web conferencing. The use of mixed media supports both formal and social communications and enables team members to use the communication tool(s) they feel most comfortable with, either because of familiarity or cultural appeal. Brewer also asserts that managers should remember that each team member is different and it is important to communicate with team members using the tools they prefer in order to build trust and gain acceptance. Additionally, Brewer notes that managers should remember that the most frequently used communication tools are not always the most useful, so challenging comfort levels may be beneficial at times.

Table 1

Technology Decision Table

Technology	Presence Awareness	Synchronicity	Hybridity	Interactivity	Purpose
Web/audio conferencing	✓	✓	✓	✓	<ul style="list-style-type: none"> To enhance team and one-on-one meetings To present data or demonstrate a point To reinforce team identity, listen, respond, and build trust To meet spontaneously to address issues, plan, solve problems, build relationships, and address differences in opinion
Audio conferences	✓	✓	-	✓	<ul style="list-style-type: none"> To manage progress with team and individuals as appropriate To listen, respond, and build trust To meet spontaneously to address issues, plan, solve problems, build relationships, and address differences in opinion
Instant messaging (chat)	✓	✓	-	✓	<ul style="list-style-type: none"> To engage in spontaneous, informal dialogue To clarify, question, and respond To create a springboard for moving to other modes of collaboration
Discussion Boards	-	✓	-	✓	<ul style="list-style-type: none"> To facilitate formal deliberation and decision-making To document information about a complex issue To distribute information equitably among all team members To seek input about issues needing resolution or clarification for two or more team members
Online project workspaces	-	✓	-	✓	<ul style="list-style-type: none"> To post project-related documents, process guidelines, instructions To issue organization-wide announcements To manage team schedules
Wikis	-	✓	-	✓	<ul style="list-style-type: none"> To post and collectively edit information
E-mail	-	-	-	✓	<ul style="list-style-type: none"> To notify, ask, and answer simple questions To create a record of actions To alert team of developments and location of new content
Internet/Intranet sites	-	-	-	✓	<ul style="list-style-type: none"> To provide information about the writing organization [or project] for other departments or for outside organizations

Note. Adapted from *International Virtual Teams: Engineering Global Success*, pp. 131-132, by P. Brewer, 2015, Hoboken, NJ: Wiley. Copyright 2015 by The Institute of Electrical and Electronics Engineers, Inc.

Kritt, B. A., & Rakshit, S. K. (2016). *U.S. Patent No. 9342514 B2*. Washington, DC: U.S. Patent and Trademark Office.

Abstract: A method, apparatus and program product in which and by which cross-cultural ambiguities in a document data file are identified and collaborative editing of such a document data file by a plurality of editors is enabled to move effectively toward a shared understanding of the intended meaning of a created document.

Summary: This patent document describes a technology which can be used to allow collaborative editing of documents by cross-cultural individuals with a minimized chance for misunderstanding due to cultural differences in communication style. The document first

explains the extreme differences often seen in communication of people from different cultures and continues with a detailed description of the process the technology would follow when editing documents. A condensed version of the process is shown in an accompanying drawing (see *Figure 1*). In layman's terms, the process is as follows: (1) a document is created, (2) specialized code is used to analyze linguistics patterns from the original document author, (3) questions are presented to the original document author if clarification is needed for other cultures to be able to understand certain areas, (4) a second editor accesses the document, (5) the document is altered to be presented in a manner that is acceptable and understandable to the second editor while the process continues with each subsequent editor, and (6) all altered documents are stored in the same location. This revolutionary technology would be invaluable to companies that require employees with different backgrounds to work together on a document and the final product to be comprehensible to all involved. Managers who are able to implement systems utilizing such technology should see a remarkable improvement in collaboration success with cross-cultural employees.

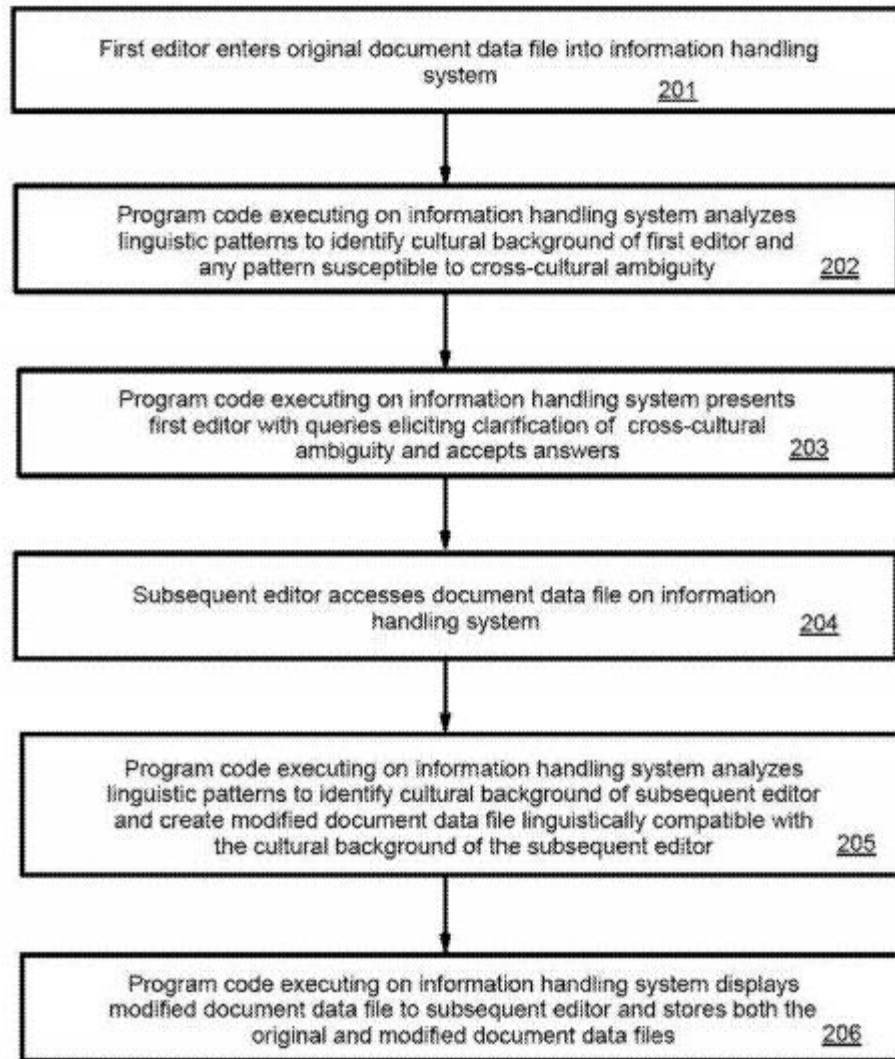


Figure 1. Flow chart depiction of steps in method in accordance with technology from Kritt & Rakshit, 2016.

Oeste-Reiß, S., Söllner, M., & Leimeister, J. M. (2016, January). Development of a peer-creation-process to leverage the power of collaborative knowledge transfer. In T.X. Bui & R. H. Sprague, Jr. (Eds.), *2016 49th Hawaii International Conference on System Sciences (HICSS)* (pp. 797-806). <https://doi.org/10.1109/HICSS.2016.103>

Abstract: The effective transfer of existing knowledge among employees becomes increasingly important for organizations in order to remain competitive on the market. Even

though the digital age allows for new ways of team collaboration, there are still unsolved problems in terms of knowledge transfer. Thus, knowledge activities as well as aspects of tool support need to be analyzed. Hence, we develop a peer-creation-process (PCP) that provokes knowledge transfer in several ways. There is a transfer of knowledge from experts to novices and among the experts, resulting in a high-quality knowledge document. We ground our research on insights from collaborative learning and collaboration engineering to develop and evaluate the PCP. We contribute to theory and practice by providing a theory for design and action, with the PCP design leveraging the power of knowledge transfer. We illustrate that our PCP is applicable with, and without, IT-support and give differentiated implications.

Summary: Oeste-Reiß, Söllner, and Leimeister's article is designed to provide tips for how to create a process for transferring and documenting knowledge in a global team. The authors describe a peer-creation process that consists of 10 separate activities, carried out by groups of lecturers and learners, using paper-based and IT-based tools, in order to determine the best sequence of events to encourage knowledge transfer and documentation which can also be used in multiple settings (online and offline). Their findings indicate that by implementing the designed PCP managers would realize an increase in knowledge transfer and knowledge gain by employees. The authors also recommend that managers interact with employees frequently, even when teams are at great distance, noting that this increased one-on-one time will assist with trust building between global team members. This study is of importance for companies who employ global teams because it shows that success can come from a reusable tool that is available online, as well as offline, with only slight modification, providing savings in time and money.

Paloş, A. M. (2012). The information flow in virtual teams. *Journal of Advanced Research in Management (De Gruyter Open)*, 3(1), 38-45.

Abstract: As new interactive and collaborative features of the Internet emerge, information is now one of the organization's most valuable assets. As an organization, being able to collect and use the information to one's advantage depends on the access to the right type of technology and the most suitable human resources whose talent is now worldwide sought. For instance, given the amount of information that the organization receives and has to manage, there is no wonder that the CIOs have become more prominent in the executive suite.

For virtual organizations, improved technology and the right human resources support translate into an increase in productivity. Google's chief economist Hal Varian states that "data are widely available; what is scarce is the ability to extract wisdom from them". Hence, the process of communication is infinitely more complex in virtual teams and virtual organizations.

This paper includes current concerns related to the importance of communication in virtual organizations and summarizes the characteristics of the groupware designed to sustain it.

Summary: This article begins with a short background on the overwhelming amount of data available in organizations today. The article continues with a section discussing types of knowledge and methods to transfer knowledge. The article focuses mainly on the use of virtual teams and how they manage and transfer knowledge between disparate groups. The author identifies three categories of technology tools in use by virtual teams: infrastructure, communication, and collaboration. The author identifies the impacts of various tools on the success of the virtual teams that choose to implement them, including the use of the Internet and Virtual Private Networks (VPNs) to assist in communication between globally dispersed employees; email; instant messaging (IM) to offer near real-time/real time communication; and collaboration software packages offering shared calendars, folders, and discussion boards. This article is beneficial for managers of international corporations that utilize cross cultural teams

because it describes technology tools might help with the collaboration struggles they experience.

Whitaker, J. W., Ekman, P., & Thompson, S. M. (2015). How multinational corporations use information technology to manage global operations. *Journal of Computer Information Systems*, 57(2), 112-122. <http://dx.doi.org/10.1080/08874417.2016.1183426>

Abstract: Despite a generally-acknowledged importance of information technology (IT) in enabling global strategy and a broad understanding of the manner in which IT enhances coordination and reduces cost, few studies have focused precisely on how multinational corporations (MNCs) use IT to facilitate globalization. To address this gap in the literature, we conduct a case study across four large MNCs, and use primary data to develop theoretical propositions on the characteristics of products, processes and customers that impact the ways in which MNCs use IT to manage their global operations.

Summary: Whitaker, Ekman, and Thompson document four case studies of firms that utilize technology to support their global operations and ensure success. The research performed consisted of interviews of management personnel. Generic history and explanations of each firm involved in the study are provided to support the fact that conclusions presented can be useful for a diverse group of firms offering varying products, utilizing different processes, and serving an assortment of customers. Information is clearly presented by the authors to prove IT is not only helpful, but necessary for globalization to be prosperous. Findings and specific recommendations include the need for all MNCs to prioritize the use of IT to coordinate back-office processes over front-office processes, the need for companies producing durable goods to implement IT for value chain reconfiguration, and the value of utilizing IT to increase local responsiveness with

individual consumers. The information in the article is useful for international managers who need to convince top leadership to take action with technology to improve and expand profits.

Conclusion

With a drastic increase in the number of employees working in virtual teams between 60-80% of employees now work from home (Chiu & Staples, 2013; Han & Beyerlein, 2016) managers are finding it hard to create an environment of efficient and effective collaboration (Neeley, Hinds, & Cramton, 2012; Tenzer, Pudelko, & Harzing, 2014). Having to overcome multiple constraints such as language barriers (Harzing, Köster, & Magner, 2011; Monalisa et al., 2008; Neeley et al., 2012; Tenzer et al., 2014), time zone differences (Monalisa et al., 2008), and cultural divides (Friesl & Silberzahn, 2012; Jensen, 2015; Reilly, 2015) has leaders seeking out proven solutions they can put into practice in their own organizations. This annotated bibliography presents 15 pieces of literature that can be examined to determine what collaboration challenges may exist within internationally distributed teams, what best practices should be used to promote successful collaboration in internationally distributed teams, and what collaboration technology can assist internationally distributed teams.

Collaboration Challenges with Internationally Distributed Teams

Monalisa et al. (2008) observed that a significant number of geographically distributed teams fail to reach their objectives. The research indicates that language barriers have a significant impact on the ability of team members to interact with one another effectively (Harzing et al., 2011; Monalisa et al., 2008; Neeley et al., 2012; Tenzer et al., 2013). Neeley, Hinds, and Cramton (2012) conducted a study where companies chose to implement an English mandate that required all employees to conduct business in English, even if it was not their native language. The results indicate that both the native and nonnative English speakers experienced anxiety when forced to conduct business in English.

Multiple researchers referred to trust as playing a large role in collaboration within internationally distributed teams (Neeley et al., 2012; Pinjani & Palvia, 2013; Tenzer et al., 2014). Neeley et al. (2012) state mistrust causes resentment within teams. Pinjani and Palvia (2013) note that lack of trust decreases team effectiveness, performance, and member satisfaction. Tenzer, Pudelko, and Harzing (2014) link language barriers to perceived trustworthiness and intention to trust among multinational team members, and note that both affect trust formation.

Monalisa et al. (2008) found additional struggles with distributed teams including inconsistency with responsibility assignment and reporting structure between cross country teams, lack of direction for continued work due to distance, time zone challenges, lack of communication between teams, no standard methods of communication, and constraints on funding for communication tools. Friesl and Silberzahn (2012) noted three challenges that occur with distributed teams; the first is temporal decoupling or “[t]ime lag between a unit’s actions and the reception of feedback from those actions” (p. 174). The second challenge is strategic decoupling, which occurs when there is “[m]isalignment between the strategies pursued by headquarters and local country subsidiaries” (p. 174). Finally, they describe operational decoupling as the difference between how collaboration occurred and how management hoped it would be conducted.

Best Practices to Promote Successful Collaboration for Internationally Distributed Teams

One very effective way to establish healthy collaboration with team members is to increase the amount of face-to-face interaction with and between employees (Green, 2012; Jensen, 2015). Research suggests that the negative impacts of language barriers may be decreased with the use of team get-togethers that provide opportunities to learn from others

(Neeley et al., 2012) and public recognition of employees' good works that were unrelated to language differences within the team (Tenzer et al., 2014).

Knowledge of one's own influence and understanding of team interaction is also imperative to success in leading a cross-country team (Jensen, 2015; Pinjani & Palvia, 2013; Reilly, 2015). Authorities on the subject note additional training (Pinjani & Palvia, 2013) and periodic culture audits completed with staff (Reilly, 2015) can provide improvement in these areas. As a best practice, managers should be diligent to promote a culture of trust between team members, as well as with members of leadership, and can help to accomplish this goal by offering training/coaching to staff (Monalisa et al., 2008), as well as by reiterating meeting information to ensure understanding by the entire team (Tenzer et al., 2014).

Another major player in facilitating global collaboration for teams is technology, which provides an easy method for manipulating and storing data for use by all employees (Ambos & Ambos, 2009). The use of technology also allows for additional time to refine communications that will be sent to others of varying language skill levels (Harzing et al., 2011). Lastly, findings show it may be best to focus on smaller disbursed teams to allow for the assignment of more specific responsibilities (Monalisa et al., 2008) and eliminate the need for multiple steps in the feedback process, which saves time for the company in the end (Friesl & Silberzahn, 2012).

Collaboration Technology for Use in Internationally Distributed Teams

As noted above, the effective use of technology plays a large role in enabling collaboration and communication in disbursed and virtual teams (Brewer, 2015; Paloş, 2012). Results reveal that IT can be of great use in enabling the effective back-office processing of MNCs while also supporting communication with customers (Whitaker, Ekman, & Thompson, 2015). Specifically designed peer-creation-processes, using both paper-based and IT-based tools,

are also available to help enhance knowledge transfer between employees, which benefits virtual team members by helping to formally document knowledge, which can then be shared within teams (Oeste-Reiß et al., 2016). More importantly, a plethora of technology options are available and have been found to be useful for both small and large global teams, with new advancements being made constantly (Brewer, 2015; Paloş, 2012).

Kritt and Rakshit (2016) recently developed a multi-author document editing technology that helps decrease miscommunication and confusion when teams are transcribing in different languages. Use of the most commonly available tools is also impactful. The Internet, VPNs, IM, and even email are useful for real-time communication, while shared calendars, group folders, and discussion boards increase team collaboration immensely (Paloş, 2012). A combination of all possible technologies provides the opportunity for all employees to embrace collaboration in the methods that best suit them, but managers must pay attention to the specific technologies employees gravitate toward and remember that sometimes non-preferred communication/collaboration methods fit certain situations better (Brewer, 2015).

Summary

As organizations gravitate more toward utilizing globally distributed and culturally diverse teams, managers will be expected to promote and embrace an environment of collaboration (Hill & Bartol, 2016; Neeley, 2015). Obstacles challenging the success of these team structures will continue to arise (Chiu & Staples, 2013; Stahl et al., 2010), and it will be critical for leaders, as well as team members, to evaluate situations and utilize best practices to address the challenges (Han & Beyerlein, 2016; Kic-Drgas, 2015; Reilly, 2015). Corporations that implement distributed teams must stay knowledgeable and current on best practices and effectively use technology in order to foster the collaboration needed for success.

References

- Ambos, T., & Ambos, B. (2009). The impact of distance on knowledge transfer effectiveness in multinational corporations. *Journal of International Management*, 15(1), 1-14.
<https://doi.org/10.1016/j.intman.2008.02.002>
- Armstrong, M., & Taylor, S. (2017). *Armstrong's handbook of human resource management practice*. London, England: Kogan Page.
- Brewer, P. (2015). Technology and global virtual teams. In *International virtual teams: Engineering global success* (pp. 114-136). Hoboken, NJ: Wiley.
<http://dx.doi.org/10.1002/9781118886465.ch6>
- Center for Public Issues Education. University of Florida. (n.d.). Evaluating information sources. Retrieved from <http://ae-coursematerials.uoregon.edu/aim/Capstone1Perm/evaluateinfo.pdf>
- Chiu, Y.-T., & Staples, D. S. (2013, October). Reducing faultlines in geographically dispersed teams: Self-disclosure and task elaboration. *Small Group Research*, 44(5), 498-531.
<https://doi.org/10.1177/1046496413489735>
- Friesl, M., & Silberzahn, R. (2012, April-June). Challenges in establishing global collaboration: Temporal, strategic and operational decoupling. *Long Range Planning*, 45(2-3), 160-181.
<https://doi.org/10.1016/j.lrp.2011.11.004>
- Green, L. (2012). Components of success. *Smart Business Northern California*, 5(5), 13-16.
- Han, S. J., & Beyerlein, M. (2016). Framing the effects of multinational cultural diversity on virtual team processes. *Small Group Research*, 47(4), 351-383.
<http://dx.doi.org/10.1177/1046496416653480>

- Harzing, A.-W., Köster, K., & Magner, U. (2011, July). Babel in business: The language barrier and its solutions in the HQ-subsidiary relationship. *Journal of World Business*, 46(3), 279-287. <https://doi.org/10.1016/j.jwb.2010.07.005>
- Hill, N. S., & Bartol, K. M. (2016). Empowering leadership and effective collaboration in geographically dispersed teams. *Personal Psychology*, 69(1), 159-198.
<http://dx.doi.org/10.1111/peps.12108>
- Jensen, K. R. (2015, December). Global innovation and cross-cultural collaboration: The influence of organizational mechanisms. *Management International*, 19(special), 101-116. Retrieved from
https://www.researchgate.net/profile/Karina_Jensen3/publication/292379375_Global_Innovation_and_Cross-cultural_Collaboration_The_Influence_of_Organizational_Mechanisms_L'Innovation_Globale_et_la_Collaboration_Interculturelle_L'Influence_des_Mecanismes_Organisationnels_La_Inn/links/56adeb7308ae43a3980e5b59.pdf
- Kic-Drgas, J. (2015). Communication conflicts in an international environment. *Global Management Journal*, 7(1-2), 73-80.
- Klitmøller, A., Schneider, S. C., & Jonsen, K. (2013). Common language differences in global virtual teams: the role of media and social categorization. *Academy of Management Annual Meeting Proceedings*, 754-759. doi:10.5465/AMBPP.2013.23
- Kritt, B. A., & Rakshit, S. K. (2016). *U.S. Patent No. 9342514 B2*. Washington, DC: U.S. Patent and Trademark Office.

- McMahon, W. (2017, February 10). 4 steps for implementing collaboration tools within government. *StateTech*. Retrieved from <https://statetechmagazine.com/article/2017/02/4-steps-implementing-collaboration-tools-within-government>
- Monalisa, M., Daim, T., Mirani, F., Dash, P., Khamis, R., & Bhusari, V. (2008, July-August). Managing global design teams. *Research Technology Management*, 51(4), 48-59. Retrieved from <http://www.jstor.org/stable/24135907>
- Neeley, T. (2015, October). Global teams that work: A framework for bridging social distance. *Harvard Business Review*, 93(10), 74-81.
- Neeley, T. B., Hinds, P. J., & Cramton, C. D. (2012, July-September). The (un)hidden turmoil of language in global collaboration. *Organizational Dynamics*, 41(3), 236-244. <https://doi.org/10.1016/j.orgdyn.2012.03.008>
- Oeste-Reiß, S., Söllner, M., & Leimeister, J. M. (2016, January). Development of a peer-creation-process to leverage the power of collaborative knowledge transfer. In T.X. Bui & R. H. Sprague, Jr. (Eds.), *2016 49th Hawaii International Conference on System Sciences (HICSS)* (pp. 797-806). <https://doi.org/10.1109/HICSS.2016.103>
- Paloş, A. M. (2012). The information flow in virtual teams. *Journal of Advanced Research in Management (De Gruyter Open)*, 3(1), 38-45.
- Pinjani, P., & Palvia, P. (2013, June). Trust and knowledge sharing in diverse global virtual teams. *Information & Management*, 50(4), 144-153. <https://doi.org/10.1016/j.im.2012.10.002>
- Reilly, P. (2015). Managing across borders and cultures. *Strategic HR Review*, 14(1/2), 36-41. <http://dx.doi.org/10.1108/SHR-07-2014-0042>

- Stahl, G., Mäkelä, K., Zander, L., & Maznevski, M. (2010, December). A look at the bright side of multicultural team diversity. *Scandinavian Journal of Management*, 26(4), 439-447.
<https://doi.org/10.1016/j.scaman.2010.09.009>
- Tenzer, H., Pudelko, M., & Harzing, A.-W. (2014, June). The impact of language barriers on trust formation in multinational teams. *Journal of International Business Studies*, 45(5), 508-535. <https://doi.org/10.1057/jibs.2013.64>
- Vignovic, J. A., & Thompson, L. F. (2010, March). Computer-mediated cross-cultural collaboration: Attributing communication errors to the person versus the situation. *Journal of Applied Psychology*, 95(2), 265-276. doi:10.1037/a0018628
- Whitaker, J. W., Ekman, P., & Thompson, S. M. (2015, June 16). How multinational corporations use information technology to manage global operations. *Journal of Computer Information Systems*, 57(2), 112-122.
<http://dx.doi.org/10.1080/08874417.2016.1183426>